

Appl. No. 10/583,818
Amdt. dated July 22, 2010
Reply to Office Action of April 27, 2010

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claim 1 as follows:

1. (currently amended) A trouble diagnosis device of a vehicle body acceleration sensor which performs a trouble diagnosis of the vehicle body acceleration sensor based on the vehicle body acceleration sensor which is mounted on a vehicle, a vehicle[[-]] speed detection means which detects a speed of the vehicle, and a vehicle[[-]] body[[-]] acceleration[[-]] sensor output fluctuation width arithmetic means which calculates an output fluctuation width of the vehicle body acceleration sensor, wherein

the trouble diagnosis device by determining that an output fixing trouble of the vehicle body acceleration sensor is not generated at a point of time that the output fluctuation width of the output value of the vehicle body acceleration sensor becomes a predetermined value or above during the traveling of the vehicle with the vehicle speed equal to or more than the predetermined speed, and by stopping the trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor until the vehicle speed is lowered to a value less than the predetermined speed avoids the unnecessary trouble diagnosis of the output fixing trouble of the vehicle body acceleration sensor, and

the trouble diagnosis device is operated until the vehicle speed which is detected by the vehicle speed detection means becomes equal to or more than a predetermined speed and the

Appl. No. 10/583,818
Amdt. dated July 22, 2010
Reply to Office Action of April 27, 2010

output fluctuation width of the vehicle body acceleration sensor which is calculated by the vehicle body acceleration sensor output fluctuation width arithmetic means becomes a predetermined value or more.

2. (original) A trouble diagnosis device of a vehicle body acceleration sensor which performs a trouble diagnosis of a vehicle body acceleration sensor according to claim 1, wherein the trouble diagnosis device further includes a timer means, and the trouble diagnosis device is operated during a period in which a predetermined time passes from a point of time that, the output fluctuation width of the vehicle body acceleration sensor assumes a value equal to or more than the predetermined change width and, again, the output fluctuation width of the vehicle body acceleration sensor assumes a value equal to or more than the predetermined change width.

3. (original) A trouble diagnosis device of a vehicle body acceleration sensor which performs a trouble diagnosis of a vehicle body acceleration sensor according to claim 1 or 2, wherein the trouble diagnosis device includes a storing and updating means which stores and updates a maximum value and a minimum value of an output value of the vehicle body acceleration sensor, and the trouble diagnosis device sets the difference between the stored maximum value and minimum value of the output value of the vehicle body acceleration sensor to the output fluctuation width of the vehicle body acceleration sensor.

4. (original) A trouble diagnosis device of a vehicle body acceleration sensor which performs a trouble diagnosis of a vehicle body acceleration sensor according to claim 3, wherein the maximum value and the minimum value of the output value of the vehicle body

Appl. No. 10/583,818
Amdt. dated July 22, 2010
Reply to Office Action of April 27, 2010

acceleration sensor stored in the storing and updating means are reset at a point of time that the vehicle speed is lowered to a value less than the predetermined speed.

5. (original) A trouble diagnosis device of a vehicle body acceleration sensor which performs a trouble diagnosis of a vehicle body acceleration sensor according to claim 1, wherein the trouble diagnosis device includes

a vehicle body acceleration arithmetic means which calculates the vehicle body acceleration based on an output signal of the vehicle-speed detection means, and

a comparison measuring means which measures a continuation time of a state in which the relative acceleration difference between a calculated value of the vehicle body acceleration arithmetic means and an output value of the vehicle body acceleration sensor output fluctuation width arithmetic means exceeds a preset value α , wherein

the trouble diagnosis device stores the maximum value and the minimum value of the output value of the vehicle body acceleration sensor during the period that the acceleration difference exceeds the preset value α , and when the difference of the stored maximum value and minimum value of the output value of the vehicle body acceleration sensor at a point of time that the continuation time of the state in which the acceleration difference exceeds the preset value α exceeds a preset time is equal to or less than a preset value β , the trouble diagnosis device determines that the vehicle body acceleration sensor is in an output fixing trouble state.

6. (original) A vehicle-use antilock brake system in which the trouble diagnosis device of a vehicle body acceleration sensor according to any one of claims 1 to 5 is incorporated in a control device which performs an antilock brake control, the vehicle-use antilock brake system comprising;

Appl. No. 10/583,818
Amdt. dated July 22, 2010
Reply to Office Action of April 27, 2010

the control device;

a liquid pressure control unit which performs a control of a braking force based on a
brake signal outputted from the control device; and

a brake device which is operated upon receiving an output from the liquid pressure
control unit.